



# FREEZING PREPARED FOODS AT HOME

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With a freezer you can prepare anything from spaghetti and meat balls to cream puffs, store them in the freezer, and have them ready for busy-day meals or parties. Lunches, diet foods, and desserts can be made in quantities for several days' use. Using the frozen foods, other members of your family can prepare meals by merely defrosting or heating enough for the family.

High quality, fresh foods should be used. They should be packaged in moisture-vapor-resistant containers, bags, or paper, and frozen quickly. The freezer temperature should be 0° F or lower, and foods should be stored only for the length of time recommended in this circular for the individual food.

Some foods, such as certain fried foods, raw tomatoes and greens for salads, egg whites, and cream pie fillings, among others, will not freeze well. Even foods which freeze well may take as long to defrost as to cook, and some may lose flavor, texture, and color during the freezing process. Seasonings must be used with special care and some foods must be prepared in special ways for freezing.

In the section "How to Prepare, Package, and Serve Combination Foods," this circular gives specific instructions on freezing individual foods as well as recommendations for storage time.

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# FREEZING PREPARED FOODS AT HOME

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A full freezer means easier meal planning. If you stock prepared foods, such as frozen casseroles or main dishes, baked goods and desserts, in addition to a supply of fruits, vegetables, and meats, you will have the ingredients for many complete meals right in the freezer. At a freezer temperature of

0° F many of these foods can be kept as long as a year, while others can be kept only a short time. By planning a steady flow of foods into and out of the freezer, you can prepare anything from simple meals to elegant formal dinners beforehand.

## ADVANTAGES

These are some of the advantages of using your freezer to store prepared and precooked foods:

- You can prepare the food at a time when it is convenient for you.
- By increasing recipes, you can prepare greater quantities of foods and freeze part of them. If you increase a family-sized recipe two to four times, the proportions may differ slightly. After you have frozen and defrosted the recipe for the first time, make note of any changes which may be needed because of the increased quantity.
- Parties can be more enjoyable since you can prepare the foods ahead of time and freeze them.
- Other members of the family can prepare a well-balanced meal by simply defrosting the foods for it.
- Foods for packed lunches can be prepared ahead of time.
- Special diet food can be prepared in quantity and packaged for the individual.
- Most baked foods will keep better in the freezer than in the refrigerator.

## ON THE OTHER HAND

Freezing may not actually save time in getting a meal since the food must be defrosted. For instance, it may take as long to defrost and heat biscuits as it takes to prepare them from a mix

and bake them fresh. However, while food is defrosting you can be doing other things.

Freezing is not an inexpensive way to preserve food.

- Most prepared and precooked foods should be kept only a short time. Combined foods may not freeze in the same way that their individual ingredients do, and many of them have a rather short storage time.

- Flavors may be weakened.
- Textures may become soggy.
- Color may fade.
- Freezing does not improve the quality of any foods. Use only high quality, fresh products.

## FOODS THAT DO NOT FREEZE WELL

While most foods freeze well (see those listed under "How to Prepare, Freeze, and Serve Combination Foods," pages 9 to 25), some do not.

- Fried foods lose crispness and have a warmed-over flavor after a short storage. Exceptions are French-fried potatoes and onion rings.

- Some milk sauces curdle.

- Custards and cream pie fillings become watery and lumpy.

- Potatoes do not have good texture after they are frozen. They may also darken. It is better to add potatoes to such foods as soups and stews when

they are defrosted and heated for serving.

- Fat may separate from gravy if too much is used in proportion to the starch or flour. Use less fat when making gravy to be frozen, and stir it well when reheating.

- Lettuce, other greens, or raw tomatoes do not freeze well. They lose their crispness and become soggy.

- Fruit jelly in sandwiches may soak the bread.

- Cooked egg whites get tough and rubbery when frozen.

- Meringue toughens and sticks to paper after a few days of freezing.

## STEPS IN FREEZING COMBINATION FOODS

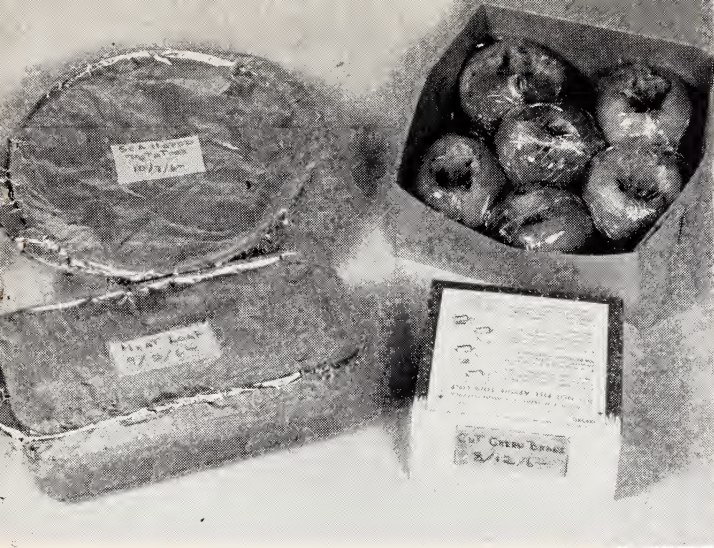
### *Preparation*

Use only fresh, high quality food. Freezing does not improve the quality. Also, freezing does not kill all of the food spoilage organisms, so that clean, quick food preparation is essential for high quality frozen food. For best quality, don't try to prepare too much food at one time.

**Season Food with Care.** Use pure extracts of vanilla. Artificial flavors give a slightly unpleasant flavor to cakes and other foods.







With prepared foods, such as frozen main dishes, desserts, and a choice of fruits and vegetables you will have foods for complete meals handy in the freezer. Oven meals are easy with foods which can be reheated at the same time.



- Spices and seasonings may change flavor in combination foods that have not been cooked before freezing or in foods stored for more than 3 months. It may be better to use spices and seasonings sparingly or add them when the food is served.

**Precooked Foods.** Slightly under-cook those foods that will be reheated after freezing. Cool foods quickly to preserve the freshness and quality. Do not allow warm food to remain at room temperature for several hours before you cool it. The quality will be poor and the chances of food spoilage will be greater. Containers of hot food can be put in a pan of water and ice. Change the water frequently to speed the cooling or run cold water into the pan.

## Packaging

Pack the food in family-sized portions or in amounts you plan to use later, so that you will avoid defrosted leftovers. It may also be handy to have some individual packages.

Exclude as much air as possible. Air will cut down the storage life because it affects the color, flavor, and texture of the food. Fill in empty spaces in the package with crumpled moisture-resistant paper.

**Containers.** Package the food in moisture-vapor-resistant containers, bags, or paper. Choose packaging best suited to the size and shape of the food.

- For foods containing liquids, rigid containers are usually most suitable. These may be glass, metal, plastic, or heavily waxed cardboard in sizes and shapes to suit the food to be frozen. Covers should be tight-fitting and there should be headspace for the food

*Left, cool cooked foods quickly to preserve freshness and quality, and to protect against food spoilage. Speed cooling by placing containers of food in running water or in ice water.*





Freeze frosted cakes before wrapping in freezer paper. If slices are frozen, place a double fold of moisture-resistant paper between slices. Place whole cakes in a box or carton.

to expand when it freezes. (See "Guide for Headspace.")

- For solid foods, such as baked goods, moisture-vapor-resistant papers are suitable, for example, aluminum foil, polyethylene sheets, clear plastic adhesive wraps, or plastic-coated or laminated freezer papers. Separate

layers of solid foods with two pieces of freezer paper.

- Some foods may be stored in freezer bags, which are usually polyethylene. Use one of a suitable size, press out the excess air, and close it by twisting and tying. A cardboard carton gives added protection and makes stacking easier.

- Heat-proof containers such as pie pans and baking or casserole dishes are also useful for freezing food. They must be covered and sealed.

- Freezer pouches made of special plastics which can be heat-sealed may be used. To heat frozen food, the pouch is immersed directly in boiling water.

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### ***Guide for Headspace for Liquid or Semiliquid Foods***

<i>Tall, straight, or slightly flared containers or bags</i>	<i>Headspace</i>
Pints	$\frac{1}{2}$ inch
Quarts	1 inch
<i>Low, broad containers</i>	
Pints	$\frac{1}{4}$ inch
Quarts	$\frac{1}{2}$ inch

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When you make a casserole dish, double the recipe and freeze half for future meals. If individual casseroles are used, cover them with freezer paper. Tape around the edges for a secure seal.







Package the food in moisture-vapor-resistant containers, bags, or paper. For foods containing liquids, rigid containers are best. These may be glass, metal, plastic, or heavily waxed cardboard in sizes and shapes to suit the food to be frozen. Covers should be tight-fitting.

### *Freezing and Storing*

Freeze foods rapidly. Place the packages in the coldest spot in the freezer. Space them so that cold air can circulate around the packages. It is important to lower the food temperature below 40° F within 4 hours to reduce the growth rate of spoilage organisms.

**Storage Temperature.** Keep a thermometer in the freezer. The temperature should be kept at 0° F or lower. Each time the temperature rises, the quality of the food is affected. For each 5 degrees above 0° F, the storage time for the food is cut in half. In other words, foods that store well for 6

months at 0° F will start to deteriorate in quality after 3 months at 5° F, and in 6 weeks at 10° F.

**Storage Time.** The quality of foods during storage and the length of time they should be stored may be affected by any of these—

- Original quality of food.
- Method of preparation.
- Wrapping material. Moisture-vapor-resistant paper, bags, and containers should be used.
- Fat content. Foods high in fat content lose quality rapidly.
- Incorporated air. When air is not



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## *Approximate Storage Time for Frozen Prepared Foods at 0° F*

### *Less than 1 month*

Biscuits, unbaked  
Cakes, frosted  
Chiffon pies  
Cup cakes, unbaked  
Potatoes, baked, mashed  
Sandwiches, open-face  
Seafood salads  
Soufflé

### *1 to 2 months*

Casseroles, fish  
Frozen salads  
Fruit pies, unbaked  
Meats, fried, without gravy  
Pastry, unbaked  
Pumpkin pie, unbaked  
Rolls, partly baked

### *2 to 4 months*

Biscuits, baked  
Cakes, unfrosted  
Cup cakes, unfrosted  
Meats, roasted, with gravy  
Potatoes, French-fried  
Quick bread, baked

### *4 to 6 months*

Casserole, general  
Cookies, unbaked  
Frozen desserts  
Meat pies  
Sandwiches  
Sponge cakes

### *6 to 8 months*

Bread, baked  
Cakes, angel  
Cookies, baked  
Fruit pies, mince  
Rolls, baked  
Rolls, partially baked  
Soups

### *6 to 12 months*

Cakes, fruit  
Candies  
Casserole, chicken  
Cheese, hard

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Many types of sandwiches can be frozen for a week's lunches. Cupcakes or other lunch treats can be wrapped individually and frozen.

excluded, food will change color, flavor and texture more rapidly.

- Storage temperature (see above).

As a rule, do not store food too long. Some frozen prepared and precooked foods will begin to lose their freshness after 2 weeks, while others keep well for several months. In general, plan to use combination frozen foods after only a short storage period. Foods kept longer than shown in the list below suffered some loss of quality when defrosted.

## *Thawing and Cooking*

For detailed instructions on specific foods, see pages 9 to 25. In general, plan to defrost and cook just enough to eat at one meal.

Precooked foods may be defrosted in the refrigerator, at room temperature, or by heating. The wrapping material should be left on to prevent accumulation of moisture when possible.

Uncooked casserole dishes usually are put directly in the oven from the freezer. Add 15 to 20 minutes to the baking time. Unbaked doughs and batters are usually defrosted before baking.



## REFREEZING

When foods have partially thawed and are refrozen, they will lose some of their quality. Use these refrozen foods as soon as possible. Consider wholly thawed foods perishable and keep them under refrigeration until used.

The conditions under which the food has thawed will determine if it should be refrozen. You may safely refreeze partially thawed food if it has been thawing for only a brief time (for instance, if it was stored overnight in the refrigerator during a temporary

power failure in the freezer), and it still feels cold and contains ice crystals.

On the other hand, if foods have slowly thawed over a period of several days to a temperature of 40° F, they are not likely to be fit for refreezing. Meats, poultry, most vegetables and some prepared foods may become unsafe to eat. Most fruits and fruit products soon develop an undesirable flavor.

Discard any unpleasant tasting or smelling food since it may contain micro-organisms that make it unsafe.

## CARE OF FOOD DURING POWER FAILURE

If you know ahead of time that the power is to be turned off, turn the freezer to the coldest setting. The lower the temperature, the longer the food will take to thaw. If the power fails suddenly, try to find out how long it will be off.

Cover the freezer with blankets, which will provide insulation and help keep the freezer cold longer.

Do not open the freezer except to add dry ice or to transfer the food for storage elsewhere.

A full freezer will remain cold longer than a partially filled one and will

usually keep food frozen for 2 days. A half-filled freezer may not keep food frozen more than a day.

If dry ice is put into the freezer soon after the power goes off, 50 pounds should keep the food temperature in a full 20-cubic-foot cabinet below freezing for 3 to 4 days. If the cabinet is half filled or less, it will remain below freezing 2 to 3 days. Work quickly with dry ice. Be sure the room is well ventilated. *Never handle dry ice with bare hands.* Place the dry ice on cardboard or boards set on top of food or on shelves. Don't place it directly on packages.

## HOW TO PREPARE, PACKAGE, AND SERVE COMBINATION FOODS

Clean, quick food preparation is essential for high quality frozen food. Freeze foods quickly. Place packages

in the coldest spot in the freezer. Keep a thermometer in the freezer. The freezer should be 0° F or lower.

# HOW TO PREPARE, PACKAGE, AND SERVE COMBINATION FOODS

[ 10 ]

FOOD	PREPARATION	PACKAGING	TO SERVE	STORAGE TIME
<b>APPETIZERS, HORS D'OEUVRES</b> (Also see Sandwiches, page 23.)	<p>Prepare as usual: Small, open-faced sandwiches Rolled canapes Puff shells Stuffed nuts and olives Bacon-wrapped tidbits Cheese rolls Dips and spreads of cheese, deviled ham, fish, avocado, and egg-yolk mixtures</p>	<p>Before packaging, spread appetizers in single layers on metal pans and freeze. Package toast or crisp base appetizers separately from other appetizers. Use shallow containers which hold not more than 2 to 3 layers. Separate layers with pieces of moisture-resistant paper. Overwrap entire container with moisture-vapor-resistant paper.</p>	<p>Toast and crisp base appetizers: Thaw at room temperature 2 to 3 hours without unwrapping. Other appetizers: Arrange on serving trays and thaw at room temperature about 1 hour.</p>	<p>Sandwich-type—2 to 4 weeks. Sausage, salami, smoked salmon, hard—3 to 4 weeks. Other types—2 to 4 months.</p>
<b>APPLES</b> Baked	Bake as usual, until barely done. Cool quickly.	Wrap each apple individually. Pack in cartons; seal and freeze.	To serve cold, thaw in wrapping at room temperature. To serve hot, unwrap and heat in moderate oven, 350° F, 15 to 20 minutes.	2 months
<b>Applesauce</b>	Make as usual, and cool.	Package, seal, and freeze.	Thaw in wrapping at room temperature.	8 to 10 months
<b>BEANS</b> Baked	Prepare as usual; use a minimum of salt pork cut in small pieces. Bake until barely tender to avoid too much softening on thawing and reheating. Cool container quickly in running cold water or in ice water.	Pack baked beans in freezer containers. Be sure all meat is covered. Leave head space (see page 6.)	Heat in the top of a double boiler or in a saucepan with a small amount of water added, stirring frequently to prevent sticking. Or bake in a hot oven, 400° F, about 45 minutes for pints or one hour for quarts.	6 months
<b>BEETS</b> Harvard	Prepare as usual, but cook sauce just until it thickens. Cool quickly.	Pack, leaving head space (see page 6).	Heat in top of double boiler, or in a saucepan with water added, if necessary.	4 months



## BISCUITS

### Baked

Make and bake as usual.

Freeze before packaging.

To serve hot, heat unthawed biscuits in a moderate oven, 350° F, for 15 to 20 minutes.

2 to 3 months

### Unbaked

Make usual recipe, but use a double-acting baking powder. Roll dough thin and cut biscuits. Freeze immediately after making.

Freeze before packaging. Stack biscuits in bags or rigid containers with two sheets of moisture-resistant paper between layers.

Bake on greased baking sheet in a hot oven, 425° F, 12 to 15 minutes if thawed and 20 to 25 minutes if unthawed.

1 month

## BREAD AND ROLLS

### Quick breads

Prepare as usual and bake to light brown:

Gingerbread

Nut and fruit breads

Coffee cake

Steamed breads

Cool quickly.

Wrap in moisture-vapor-resistant paper.

Thaw in wrapping at room temperature, or if wrapped in aluminum foil, heat in hot oven, 400° F. Slice fruit and nut breads while partially frozen to prevent crumbling.

2 to 4 months

### Yeast breads and rolls, baked

Prepare and bake as usual. Cool quickly.

Freeze before wrapping.

Thaw in wrappings at room temperature, or, if wrapped in aluminum foil, heat in a slow oven, 300° F, about 15 minutes.

6 to 8 months

### Yeast breads, partially baked

Prepare as usual. Small rolls freeze best. Bake in a slow oven, 275° F, for about 20 minutes. Cool quickly.

Wrap and freeze.

Thaw in wrappings 10 to 15 minutes. Bake in a hot oven, 425° F, 5 to 10 minutes or until lightly browned. If the undercrust of the rolls is too moist, bake on a cooling rack instead of a baking sheet.

6 to 8 months

### Yeast rolls, unbaked

Use plain or sweet dough recipe. Shape rolls after one rising. Grease all surfaces.

Package as soon as possible. Freeze immediately.

Thaw in warm, moist place. Let rise until light, 1 to 2 hours. Bake as usual.

2 to 4 weeks

FOOD	PREPARATION	PACKAGING	TO SERVE	STORAGE TIME
<b>CAKES</b>				
Angel Chiffon Sponge	Make as usual. Cool. Do not use egg white in frosting.	If frosted, freeze before wrapping. Wrap and freeze. If slices are frozen, place a double fold of moisture-resistant paper between slices. If tube pan is used, fill hole in cake with crumpled moisture-resistant paper. Place whole cake in a box or carton to prevent crushing.	Thaw in wrappings on a rack at room temperature for 1 to 2 hours. Or, if not frosted and if wrapped in aluminum foil, thaw in a slow oven, 300° F, 15 to 20 minutes. Frosted cakes may be thawed at room temperature or in the refrigerator. Remove wrapping if frosting begins to stick to it.	Egg white cakes—6 months. Whole-egg cakes—4 to 6 months. Egg-yolk cakes—2 months
Shortened—including chocolate, nut and spice types, baked	Prepare and bake as usual. Cool. Do not use egg white in frosting.	If frosted, freeze before wrapping. Wrap and freeze. If slices are frozen, place a double fold of moisture-resistant paper between the slices. Place whole cake in a box or carton to prevent crushing.	Thaw in wrappings at room temperature about 2 hours. Or, if not frosted and wrapped in aluminum foil, thaw in wrappings in a slow oven, 300° F, 10 to 15 minutes for layer cakes and 25 to 30 minutes for loaf cakes. Frosted cakes may be thawed at room temperature or in the refrigerator. Remove the wrapping if the frosting begins to stick to it.	2 to 4 months
Unbaked	Prepare as usual but use double-acting baking powder. When batter is frozen, the volume of the cake after baking will be smaller.	Package in carton or in cake pans. Overwrap cake pans.	Thaw batter in cartons just enough to transfer to baking pans; if it is thawed too long before transferring, it will lose some leavening power. Complete thawing in baking pan. Large cake and loaf cake batter should be completely thawed before baking. Layer cakes may be thawed about	2 to 3 months



<b>Cupcakes, baked</b>	Make as usual, but bake in paper cups for easier storage.	Freeze before wrapping. Wrap individually or in pairs in moisture-vapor-resistant paper. Store in box that can be opened easily to remove just the number to be used.	Thaw at room temperature about 1 hour, or if not frosted and if wrapped in aluminum foil, heat in a slow oven, 300° F, for 10 minutes.	2 to 3 months
<b>Unbaked</b>	Prepare as usual but use double-acting baking powder. Fill paper cups one half to two thirds full.	Freeze before packaging. Store in plastic bag or in a carton. If carton is used, fill air spaces with crumpled moisture-resistant paper. Wrap carton.	Bake while still frozen, in a slow oven, 275° F, for 15 minutes, then raise the temperature to moderate, 350° F, for another 15 minutes.	1 month
<b>Cheesecake</b>	Prepare and bake as usual.	Freeze before wrapping. Wrap and store in carton.	Remove wrap and thaw in refrigerator 4 to 6 hours, or thaw ½ hour at room temperature. If stored in metal pan, dip bottom of pan in warm water to unmold.	4 months
<b>Fruitcake, baked</b>	Bake as usual.	Freeze before wrapping, then wrap in moisture-vapor-resistant paper.	Thaw in wrapping at room temperature about 1 hour per pound of cake.	12 months
<b>Unbaked</b>	Prepare batter as usual.	Freeze before wrapping in baking pans. Wrap in moisture-vapor-resistant paper.	Thaw completely at room temperature, 2 to 5 hours, depending on size of cake. Bake as usual.	8 to 9 months
<b>Upside-down cake</b>	Freezing not recommended.			

FOOD	PREPARATION	PACKAGING	TO SERVE	STORAGE TIME
<b>CANDIES</b>				
	Prepare as usual, or freeze commercial candy.	Wrap in moisture-vapor-resistant paper.	Thaw candies in wrapping to room temperature. Fat "bloom," which may have developed during freezing, should disappear using this method. Cracks in brittle candies (except spun chips), chocolate-covered nuts, and a few creams should disappear when candies are thawed.	1 year
<b>CHEESES</b>				
Creamed cottage cheese	Not recommended for freezing.			
Uncreamed cottage cheese		Freeze in container.	Thaw in container in refrigerator.	1 to 2 weeks
Cream cheese		Freeze in moisture-vapor-resistant paper.	Thaw in wrapping in the refrigerator.	4 months
Hard natural cheese, bleu, Roquefort	Cut into convenient-sized blocks or slice or grate hard cheeses. Frozen hard cheese may be grated and refrozen.	Wrap blocks in moisture-vapor-resistant paper. Separate slices with double thicknesses of moisture-resistant paper, and freeze. Cheese may also be stored in sealed plastic bags.	Thaw in wrappings in the refrigerator. May become crumbly after long freezer storage, but cheeses retain their flavor.	6 to 12 months
Soft cheeses (such as Camembert)	When soft cheeses are at desired ripeness, freeze to keep them from ripening further.	Wrap in moisture-vapor-resistant paper.	Thaw in wrapping in the refrigerator.	4 months
<b>COOKIES</b>				
Meringue-type, such as macaroons	Not recommended for freezing.			



Package in cartons or plastic bags, with moisture-resistant paper between layers and crumpled in spaces.

Thaw in wrapping 15 to 20 minutes if cookies are crisp type. They will be less crisp than cookies baked from frozen doughs. Soft cookies may be placed on serving plate to thaw.

Unbaked

For *bar or refrigerator* cookies, form dough into roll. Slice if desired.

For *drop* cookies, drop on baking sheet or prepare bulk dough.

Wrap and freeze.

If cookies are formed, freeze on baking sheet. Store in moisture-vapor-resistant carton with moisture-resistant paper between layers. Package bulk dough in rigid container or plastic bag.

Bake without thawing.

Bake formed cookies without thawing in hot oven, 400° F, 10 minutes. Thaw bulk dough at room temperature until soft enough to drop by spoonfuls on greased baking sheet. Bake in hot oven, 400° F, 10 to 15 minutes.

6 months

6 months

CORNMEAL MUSH OR SCRAPPLE

Cook until thick. Mold in loaf pan. Cool and slice.

Freeze slices before wrapping. Separate slices with 2 pieces of moisture-resistant paper. Pack in rigid container or plastic bag.

If used as mush, heat in top of double boiler. Add water if necessary. For frying, do not thaw. Brown in a heavy, lightly greased skillet.

6 months

CRANBERRY SAUCE OR RELISH

Make as usual.

Pack in rigid container. Cover with a piece of crumpled moisture-resistant paper. Leave head space. (See page 6.)

Thaw in refrigerator or at room temperature.

8 to 12 months

CREAM, WHIPPING

Freeze whipped or unwhipped. For best results add 1/3 cup sugar to each quart of cream. Cream whipped after it is thawed does not become as stiff as usual. To freeze after whipping, put dabs of whipped cream on cardboard or baking sheet and freeze.

Remove dabs of frozen whipped cream to carton or plastic bag. Fill air spaces with crumpled moisture-resistant paper. Package unwhipped cream in suitable-sized rigid containers. Leave head space (see page 6).

Thaw in refrigerator, or serve frozen.

3 to 6 months

FOOD	PREPARATION	PACKAGING	TO SERVE	STORAGE TIME
<b>CREAMED CASSEROLE DISHES</b> Meat, Fish, Poultry	Prepare as usual. Slightly undercook added food. If waxy rice flour is available, use it to replace half or more of the flour. Omit hard-cooked eggs and cooked potatoes. Cool rapidly by setting pan in cold running water or in ice water. Stir to hasten cooling, but don't beat in air.	Pack in rigid, wide-mouthed containers. Cover with a single thickness of paper, cut to fit the surface. Leave head space (see page 6). Lobster, crab, and shrimp will gradually toughen in storage.	Heat, from frozen or thawed state, in top of double boiler or in moderate oven, 350° F. If sauce has separated, stirring will make it smooth.	Chicken—10 to 12 months. Shellfish—1 to 2 months. Other—4 to 6 months.
<b>CREAM PUFF AND ECLAIR SHELLS</b> Baked	Make as usual. Cool. Slit and remove any moist parts. Do not fill with cream filling. Ice cream may be used as filling if desired.	Wrap individual puffs. Freeze. Put into rigid containers without crowding puffs. Fill spaces with crumpled moisture-resistant paper.	Thaw in wrapping at room temperature about 10 minutes; thaw filled shells longer.	1 to 2 months
Unbaked	Make dough as usual. Drop rounded tablespoonsfuls on trays and freeze.	Remove frozen dough to plastic bags.	Place frozen puffs on baking sheet. Leave considerable space between puffs. Thaw 25 to 30 minutes at room temperature. Bake as usual.	3 to 4 weeks
<b>CUSTARDS</b>	Not recommended for freezing since they may separate and curdle on thawing.			
<b>DOUGHNUTS</b>	Raised doughnuts freeze best. Cake-type doughnuts may become slightly crumbly. Glazed doughnuts lose the glaze on freezing and thawing. Prepare all types as usual and cool.	Package in plastic bags, or in rigid containers with crumpled moisture-resistant paper inserted in air spaces. If container is not of freezer material, wrap in moisture-vapor-resistant paper.	Thaw in hot oven, 400° F, or in wrapping at room temperature. Roll glazed doughnuts in granulated sugar if desired.	3 to 4 weeks



## DRESSING

(for meat or poultry)

Make as usual. Cool quickly by placing container in running cold water or in ice water.

Package in moisture-vapor-resistant paper or in rigid containers.

Place in greased casserole before completely thawed. Add a small amount of water, cover, and heat in a moderate oven, 350° F, or heat in top of double boiler.

1 month

## FISH DISHES

Baked or boiled

Prepare as usual. Leave whole or in large pieces. Cool quickly by placing container of fish in running cold water or in ice water.

Wrap in moisture-vapor-resistant paper, or package in plastic bags or rigid containers. If rigid containers are used, sauce or broth can be added. Be sure it covers the fish, and fill air spaces with crumpled moisture-resistant paper.

Unwrap and heat without thawing in hot oven, 400° F, 20 to 25 minutes.

1 to 2 months

Fish loaves

Prepare as usual. Do not put bacon strips on top. Pack in loaf pan; do not bake.

Wrap in moisture-vapor-resistant paper, filling any air spaces with crumpled moisture-resistant paper, or place in plastic bags.

Thaw in wrapping in refrigerator for 1 to 2 hours. Unwrap and bake in very hot oven, 450° F, for 15 minutes, then reduce heat to moderate, 350° F, to finish baking.

1 to 2 months

Flaked, in cheese or Creole sauce

Make as usual, keeping fat to a minimum. Slightly undercook vegetables. Cool quickly by placing container in running cold water or in ice water.

Use rigid wide-mouthed containers. Be sure fish is covered by sauce. Leave head space (see page 6).

Partial thawing in package at room temperature will help to prevent overcooking. Heat partially thawed or frozen food in top of double boiler or in a hot oven, 400° F, about 1½ hour.

4 to 6 months

Flaked, in cream sauce

See page 16.

Fried pieces or sticks

Fried fish may lose some fresh flavor and crispness during freezing; this is partly restored on reheating. Fry as usual, but do not completely cook. Cool quickly.

Place frozen sticks or pieces in a single layer in a well-greased baking pan. Bake in a hot oven, 400° F, 20 to 25 minutes, or until fish is heated through and crisp.

1 to 2 months

FOOD	PREPARATION	PACKAGING	TO SERVE	STORAGE TIME
<b>FISH DISHES, <i>continued</i></b> Salads (not gelatin type)	Make as usual.	Package in rigid container. Fill air spaces with crumpled moisture-resistant paper.	Thaw in container at room temperature about 3 hours. Celery may cause some separation, but light tossing or stirring will recombine.	2 weeks
<b>FROSTINGS AND FILLINGS</b>	Do not freeze cream fillings or ones containing eggs or frostings containing egg whites. Frozen frostings lose some gloss and ones with much granulated sugar may become grainy.	Package in rigid containers or plastic bags.	Thaw in container in refrigerator.	1 to 2 months
<b>FROZEN DESSERTS</b> Ice cream, ices, mousse, sherbet, fruit sponge, Bavarian	Use recipes with a cooked base, gelatin, marshmallow, or other stabilizer. Recipes with whipped egg white are not successful. Mousses need only be mixed and poured into container. Fruit sponges and Bavarians should be frozen before they are set; they will be firmer after thawing and have less leakage.	Package in rigid containers, or leave in molds. Fill air spaces with crumpled moisture-resistant paper.	Thaw in refrigerator or at room temperature until soft enough for serving.	Mousses, fruit sponges, Bavarians—2 months. Others—6 months.
<b>GRAVY</b>	Since gravies tend to separate and curdle when thawed, it is better to freeze broth and make the gravy just before serving. If gravy is to be frozen, adding $\frac{1}{4}$ teaspoon gelatin to each quart of gravy reduces curdling. If waxy rice flour is available, use it to replace half or more of the flour. Fat separation occurs only when too much fat is used in relation to flour.	Package in rigid containers.	Heat in top of double boiler. Break the frozen blocks.	2 months



<b>ICE CREAM—</b> Pies, cakes, rolls	Make as usual.	Freeze before wrapping. Wrap in moisture-vapor-resistant paper.	Mellow in refrigerator 1 to 2 hours, or thaw until soft enough to serve.	1 to 2 months
<b>MACARONI OR SPAGHETTI</b>	Usually better to cook just before using. If they are to be frozen, undercook slightly.	Freeze in cartons or plastic bags.	Thaw in sauce or in a steamer about 10 minutes.	1 month
<b>MEAT AND POULTRY</b>				
<b>Fried</b>	Frozen fried meats and poultry may lose some fresh flavor and crispness. Fry as usual until almost done. Cool quickly.	Freeze on trays. Wrap pieces in moisture-vapor-resistant paper, or place in plastic bags.	Thaw at room temperature. Place in a shallow pan and heat, without a cover, in a moderate oven, 350° F, for 30 to 45 minutes.	1 to 3 months
<b>Roast</b>	Roast as usual. Remove as much fat as possible. May be boned to save space, but keep pieces large. Turkey and other large fowl should be cut from the frame. Ham and other cured meats often lose their color when frozen and become rancid more quickly than other meats. Gravy, sauce, or broth helps to keep meat from drying out and losing color.	<i>Dry</i> (for short storage)—Package in moisture-vapor-resistant paper <i>With sauce or broth</i> —Package in rigid containers. Cover meat with sauce, gravy, or broth. Cover with a piece of crumpled moisture-resistant paper. Leave head space (see page 6).	Thaw <i>dry</i> meat in wrapping in refrigerator or at room temperature. Or set container in water. If wrapped in aluminum foil, heat in slow oven, 325° F. Thaw <i>meat with sauce</i> in refrigerator 5 to 6 hours, or heat slowly on top of range or in oven.	2 to 4 months
<b>Dressing, for meat or poultry</b>	See directions on page 17.	Use rigid wide-mouthed containers. Be sure meat is covered with sauce or broth. Leave head space (see page 6).	Partial thawing in package at room temperature will help to prevent overcooking. Heat partially thawed or frozen food in top of double boiler or in a hot oven, 400° F, about 1½ hour.	4 to 6 months
<b>Combination meat dishes—stews, spaghetti sauce with meat or meat balls, ravioli</b>	Make as usual, keeping fat to a minimum. Omit potatoes from stew. Slightly undercook other stew vegetables. Freeze meat balls and spaghetti sauce, and cook spaghetti just before serving. Cool rapidly by setting pan in running cold water or in ice water.			

FOOD	PREPARATION	PACKAGING	TO SERVE	STORAGE TIME
<b>Meat loaf</b>	Follow directions given for fish loaf, page 17.			
<b>Meat pies</b>	Prepare meat and vegetables as usual. Cook until nearly done. It is best to omit potatoes. Cool container quickly in running cold water or in ice water. Do not use bottom crust. Pour meat mixture into casserole or individual containers. Top with pastry. Do not cut vents in pastry. Do not bake.	Wrap in moisture-vapor-resistant paper. Or, freeze pie before wrapping and store in plastic bag.	Cut vents in crust. Bake without thawing in hot oven, 400° F, about 45 minutes for individual pies and 1 hour for larger pies, or until meat mixture is piping hot and crust is golden brown.	4 to 6 months
<b>MUFFINS</b> <b>Baked</b>	Prepare as usual. Bake and cool.	Package in moisture-vapor-resistant paper or container.	Thaw in wrapping at room temperature about 1 hour. Or heat in slow oven, 300° F, about 20 minutes.	6 to 12 months
<b>PASTRY</b> <b>Unbaked</b>	Make regular pastry or crumb crust as usual. Fit into pie pans.	Stack the pie pans with two pieces of moisture-resistant paper between each; then one crust may be removed at a time. Cover top pie crust with paper. Wrap stack with moisture-vapor-resistant paper.	Bake, still frozen, in a very hot oven, 475° F, until light brown. Or, fill and bake as usual.	6 to 8 weeks
<b>Baked</b>	Bake as usual and cool.	Leave in pie pan or freeze before wrapping and remove from pan. Wrap in moisture-vapor-resistant paper, excluding as much air as possible. Storage in a box or carton will protect shells.	Thaw in wrapping at room temperature 10 to 20 minutes. Add filling.	2 to 3 months



PIES

Chiffon

Make with gelatin base.

Freeze before wrapping. Wrap in moisture-vapor-resistant paper or put in plastic bag. Store in carton.

2 weeks

Thaw unwrapped at room temperature for 1 hour.

Custard and cream

Fruit

Make as usual, except that for very juicy fillings add an extra tablespoon of flour or tapioca, or 1/2 tablespoon of cornstarch. This will help to prevent fillings from boiling over when pies are baked. Do not cut vents in top crust.

Do not bake.

Steam and cool light fruits before making pie, or—

For *apple* pie: Dip raw apple slices in mixture of 1/2 teaspoon ascorbic acid to 1 cup water. One cup will treat apples for 4 or 5 pies.

For *peach* pie: Peel peaches without scalding. Slice. Mix with 1 tablespoon lemon juice or 1/4 teaspoon ascorbic acid in 1 teaspoon water per pie.

Freeze fruit pies in their pans. Wrap in moisture-vapor-resistant paper or put in plastic bag. Store in carton or cover with second empty pan turned upside-down and tape edges together.

Cut vent holes in upper crust. Place on cookie sheet. Bake without thawing for 15 to 20 minutes in a very hot oven, 450° F, then reduce heat to 375° F and bake for 20 to 30 minutes more, or until top crust is brown.

6 to 8 weeks

Meringue

Freezing not recommended.

Mince

Make as usual. Do not cut vents in top crust. Do not bake.

Package the same as fruit pies.

To bake, follow directions for fruit pies.

6 to 8 months

Pumpkin

Prepare pie shell and filling as usual. Have filling cold before adding it to pie shell.

Package the same as fruit pies.

Bake without thawing, 10 minutes in a hot oven, 400° F; then reduce heat to 325° F to finish baking.

4 to 5 weeks

FOOD	PREPARATION	PACKAGING	TO SERVE	STORAGE TIME
<b>Pie fillings— (except custard type)</b>	Make as usual.	Freeze in rigid containers. Leave head space (see page 6).	Thaw just enough to spread in pie crust.	
<b>POTATOES</b>				
<b>Baked and stuffed</b>	Bake and stuff as usual.	Place halves in carton which opens at top. Freeze. Fill air spaces with crumpled mois- ture-resistant paper. Over- wrap carton. If halves are put together, wrap in freezer foil or put in plastic bags.	Bake without thawing in a hot oven, 400° F, until thor- oughly heated and lightly browned.	2 to 4 weeks
<b>French fries or shoestring</b>	Cut strips rather small. Blanch or scald in boiling water for 1 to 2 minutes. Drain well. Fry quickly to light brown. Drain. Do not salt. Cool quickly.	Pack in rigid container or plastic bag.	Spread on baking sheet. Heat and finish browning in a hot oven, 400° F, about 5 to 6 minutes.	2 to 3 months
<b>Mashed</b>	Make as usual. Shape into patties or leave in bulk.	Pack patties with 2 pieces of moisture-resistant paper be- tween layers. Press bulk pota- toes tightly into container in layers, with 2 pieces of mois- ture-resistant paper between layers. Press out air spaces. Place crumpled moisture-re- sistant paper on top.	Thaw just enough to slip into top of double boiler. Stir while heating. Or, fry patties slowly, without thaw- ing.	2 weeks
<b>New (very small)</b>	Boil until barely tender.	Pack in plastic bag.	Thaw in bag. Use as freshly cooked.	1 month
<b>Scalloped</b>	Prepare and bake as usual until almost tender and a delicate brown color. Leave in baking dish. Cool quickly.	Cover surface with moisture- resistant paper cut to fit. Wrap in moisture-vapor-re- sistant paper or put in plastic bag.	Place in cold oven, or par- tially thaw at room tempera- ture. Add milk if necessary. Complete baking.	2 weeks



## PUDDINGS

### Steamed

Prepare and steam as usual, using as little fat as possible. Remove from container; cool in air. If highly spiced, reduce spices one third to one half.

Return to original container and wrap with moisture-vapor-resistant paper or put in plastic bag.

Reheat in steam. Or thaw at room temperature for 6 hours and then steam.

8 to 10 months

### Bread, rice, or tapioca

Prepare as usual. Cool container of pudding quickly in cold running water or in ice water.

Package in rigid container. Leave head space (see page 6). Cover surface with crumpled moisture-resistant paper. Individual containers may be used.

Thaw in container in refrigerator.

2 weeks

## RAVIOLI

See MEAT, Combination dishes, page 19.

## SALADS

### Fruit

Salads which freeze well are fruit salads which are served frozen with a base of cream or cottage cheese, whipped cream, mayonnaise, or gelatin combined with one of these (not a separate gelatin layer). Do not use apples, grapes, or nuts. Leave in large or individual molds.

Fit a piece of moisture-resistant paper over the top. Wrap in moisture-vapor-resistant paper.

Mellow in refrigerator about 1 hour.

6 to 8 weeks

### Meat, poultry, and shellfish

Follow directions for Fish Salad on page 18.

## SANDWICHES

Use day-old bread. Spread to edges with softened butter or margarine. Omit: crisp vegetables, hard-cooked egg white, tomato, jellies and jams. Mayonnaise tends to separate.

Wrap individually or in groups in moisture-vapor-resistant paper. Sandwiches may be carefully wrapped in double thicknesses of waxed paper if kept only a week or

Thaw at room temperature in wrappings 3 to 4 hours.

American cheese, baked ham, bologna—3 to 4 weeks.  
Others—3 to 6 months.

FOOD	PREPARATION	PACKAGING	TO SERVE	STORAGE TIME
<b>SANDWICHES,</b> <i>Continued</i>				
Open-faced sandwiches	See Appetizers, page 10.	two. Keep them away from the freezer wall to prevent uneven moistness when thawed. Store in box or plastic bag.		
<b>SAUCES</b> Dessert and meat	If flour is used in making sauce, see GRAY, page 18. Since spices may change flavor over long storage, it is best to add them just before serving.	Package in rigid container. Cover with crumpled moisture-resistant paper. Leave head space (see page 6).	Thaw in package at room temperature, or heat in top of double boiler. Stir well if sauce tends to separate.	3 to 4 months
<b>SOUPS</b>	Omit potatoes. When possible, concentrate by using less liquid in preparing, or by evaporating liquid when cooking. Cool quickly by placing pan in cold running water or in ice water.	Package in rigid containers. Leave head space (see page 6). Or, freeze in ice cube trays, and store cubes in plastic bag.	Heat without thawing; heat cream soups in top of a double boiler. If cream soup has separated, stirring will make it smooth. If concentrated, add hot liquid. Add potatoes or other vegetables needed.	4 to 6 months
<b>SPAGHETTI SAUCE</b>	See MEAT, Combination dishes, page 19.			
<b>STEW</b>	See MEAT, Combination dishes, page 19.			
<b>SWEET POTATOES</b>				
Mashed	Cook until soft. Allow to cool at room temperature. Peel.  Use $\frac{1}{4}$ to $\frac{1}{3}$ cup orange juice to 1 cup mashed sweet potatoes. Other seasonings can be added when used.	Pack as described for bulk mashed potatoes above.	Heat in top of double boiler.	6 to 8 months

Or dip peeled potatoes for 5 seconds in a solution of 1 tablespoon citric acid (or ½ cup lemon juice) to 1 quart water. Mash.

## Slices or candied

Slice cooked potatoes and dip for 5 seconds in a solution of 1 tablespoon citric acid (or ½ cup lemon juice) to 1 quart water. For candied potatoes, use cooked slices or whole small cooked potatoes and dip in lemon juice, drain, and then roll in sugar.

Candied—6 to 8 months.  
Slices—2 to 3 months.

Pack in rigid containers or plastic bags. Fill air spaces with moisture-resistant paper.

Bake on a greased baking sheet in a moderate oven, 350° F, for 25 to 30 minutes, or fry.

## Sweet potato balls

Follow directions for mashed sweet potatoes. Form into balls. Brush with melted butter or margarine. Roll in crushed cereal flakes or finely chopped nuts.

Bake on a greased baking sheet in a moderate oven, 350° F, for 25 to 30 minutes.

Freeze balls on baking sheet before packaging. Package in rigid containers or plastic bags. Fill air spaces with moisture-resistant paper.

1 month

## WAFFLES

Bake to a light brown. Cool.

Wrap individually or in pairs in moisture-vapor-resistant paper.

Heat without thawing in a pop-up toaster, under the broiler, or on a baking sheet in a hot oven, 400° F, for 2 to 3 minutes.

1 to 2 months



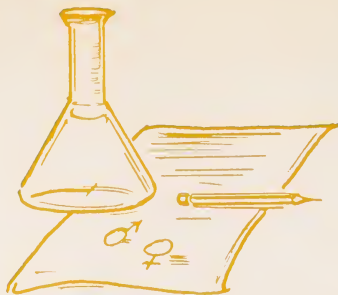
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here . . .*

Laboratory findings are often given further tests under controlled conditions in greenhouses (new plant varieties, for instance).



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work here?*

Possibly not. Some (these new plant varieties, for instance) fail miserably when the Experiment Station and Extension Service staff members collaborate in field testing the experiments.

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